

Safe electronic output 10 A / 20 A

Safe contact expansion module 10 A / 20 A

Applications up to category 4/PLe/SIL 3



(Figure similar)



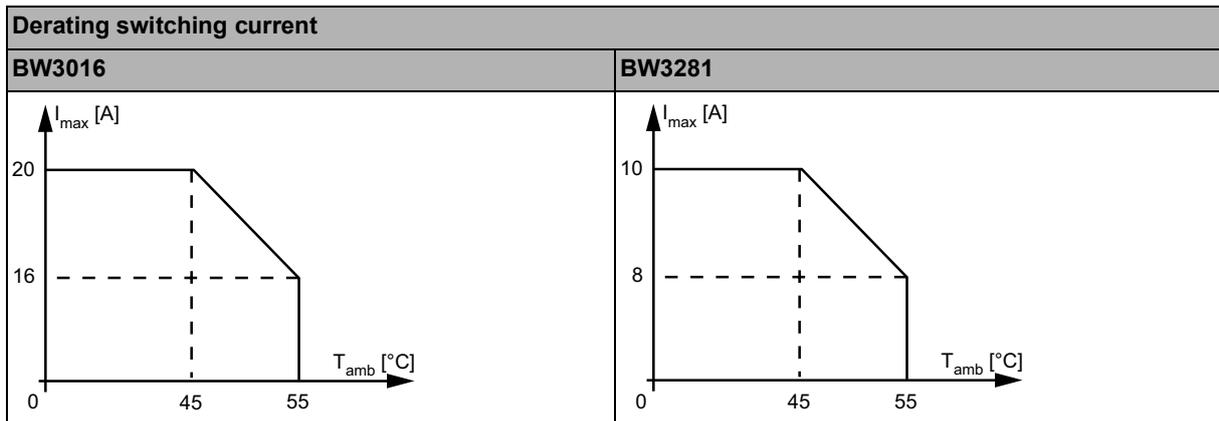
Article no. BW3016: Safe electronic output 20 A

Article no. BW3281: Safe electronic output 10 A

Article no.	BW3016	BW3281
General data		
Type of device	safe electronic output 20 A	safe electronic output 10 A
Number of contact sets per channel	1	
AUX		
Voltage	24 V _{DC} (18 ... 30 V)	
Max. current consumption	100 mA + load current	
External fuse	20 A, slow-blow	10 A, slow-blow
Input		
Number	1 x electronic safe input	
Voltage	max. 30 V _{DC} (SELV)	
Signal level	0-signal: < 5 V _{DC} 1-signal: > 10 V _{DC}	
Permissible test pulse time	max. 1,5 ms	
Switching frequency	max. 1 Hz	
Output		
Number	contact expansion, 1 x electronic safe output	
Power supply	out of AUX	
Output current	max. 20 A ⁽¹⁾	max. 10 A ⁽¹⁾
Capacitive load	max. 1,7 mF	
UL load type	general purpose, resistive	
EDM Output		
Voltage	max. 30 V _{DC}	
Current	max. 20 mA	
Voltage drop	max. 4 V (output voltage: 14 V...30 V _{DC})	

Article no.	BW3016	BW3281
Display		
LED PWR (green)	power supply present	
LED CH1 (yellow)	lights: output on	
LED EDM1 (yellow)	lights: output off	
LED TST (yellow)	only when both switches are set to 1: lights up when the automatic test pulse mode is activated, since for too long time no shutdown has been detected. Is maintained until the next switch off of the supply voltage	
Environment		
Applied standards	EN 62061, SIL 3 EN 61508, SIL 3 EN ISO 13849-1, PLe EN 60529	
UL certification	yes ⁽²⁾	yes ⁽⁴⁾
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes ⁽³⁾	
Operating altitude	max. 2000 m	
Ambient temperature	0 °C ... +45 °C (+55 °C at max. 16 A) ⁽¹⁾	0 °C ... +45 °C (+55 °C at max. 8 A) ⁽¹⁾
Storage temperature	-25 °C ... +85 °C	
Intended environment	for indoor use only	
Housing	plastic, for DIN rail mounting	
Protection class	IP20	
Tolerable loading referring to humidity	according to EN 61131-2	
Pollution degree of the intended environment	II	
Overvoltage category	II	
Maximum tolerable shock and vibration stress	according to EN 61131-2	
Voltage of insulation	≥500 V	
Weight	160 g	
Dimensions (W / H / D in mm)	22,5 / 99 / 114	

(1)



(2) From Ident. No. 18652

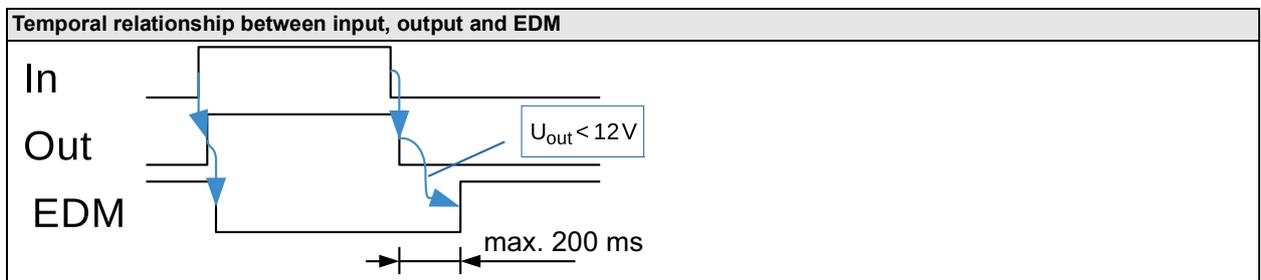
(3) The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

(4) From Ident. No. 18653

	<p>Please observe the following instructions. For more information see installation instructions.</p> <ul style="list-style-type: none"> • Safety precautions and warnings are designated by the symbol. • Bihl und Wiedemann GmbH is not liable for damage resulting from improper use of its equipment. Familiarity with these instructions constitutes part of the knowledge required for proper use. • The device should be installed in a control cabinet with a protection type of at least IP54! • The device may only be operated within the limits of its technical specifications. It may only be operated with the specified current and voltage values. • The 24 V must be supplied by a PELV power supply. Its maximum output voltage may not exceed 42 V even in the case of a fault!
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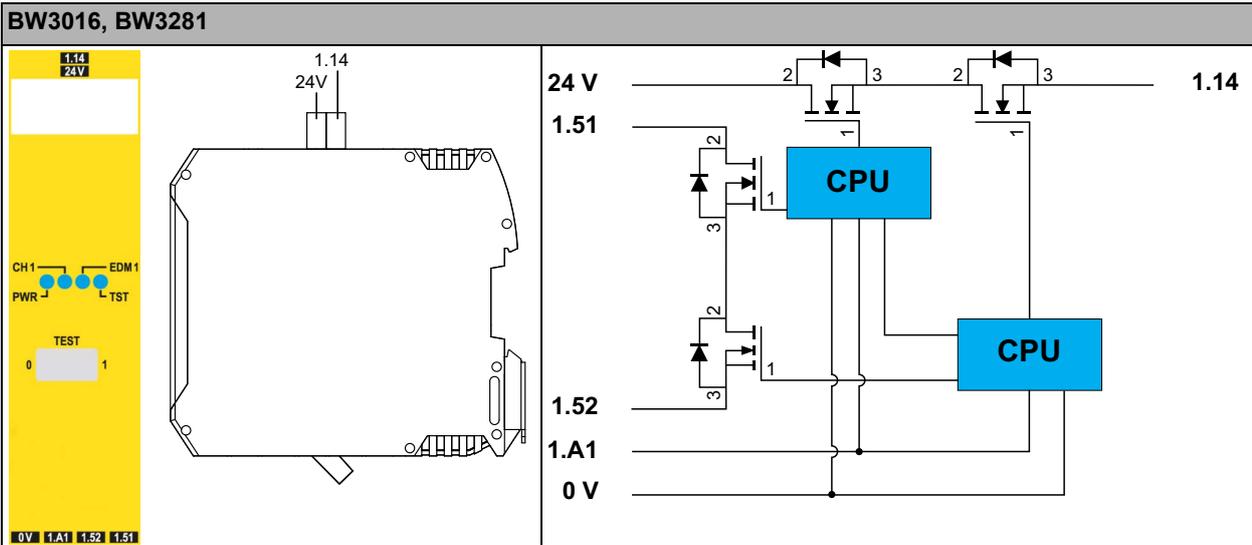
Test pulse (BW3016, BW3281)

Switch setting	
	Every 28.800 sec (8 h) test pulses will be generated, if not an operational shutdown is done before.
	Every 28.800 sec (8 h) test pulses will be generated, if not an operational shutdown is done before.
	No test pulses generated.
	SIL3 is not achievable in this operation mode!
	no valid operation mode
	no valid operation mode



Terminal assignment

Clamps	Description
0 V	Supply, 0 V of the module
1.A1	Switching input
1.52	EDM output, negative pole
1.51	EDM output, positive pole
24 V	Supply, 24 V for output and module
1.14	output



Note

To achieve passive safety, the device must be installed in a switching cabinet with protection class IP54.

Accessories:

- ASI-5/ASI-3 Address Programming Device (art. no. BW4708)
- Bihl+Wiedemann Safety Suite License - Safety Software for Configuration, Diagnostics and Commissioning (art. no. BW2916)